

## **Rule 21 Working Group Meeting**

**April 29, 2002**

**ABB Catalyst**

**1900 Wright Place #200**

**Meeting Agenda**

### **Combined Group Discussion 9:30 am to 10:30 am**

- Introductions & Next Meeting Location – May 30, PG&E [Oakland?]
- Equipment Certification Update -- Plug Power:

Jeff Newmiller asked for feedback from SCE & SDG&E; Bill C. & Ed G. hadn't had time to review the Plug Power Tests. Plug Power did the UL 1741 tests. 1741 is not strict on trip settings, and so there is some uncertainty whether Plug Power has met the requirements in it. Verification of trip was required, but voltage level at which trip occurred was not required. Set points at which inverter is set is provided in the Plug Power document [<filename.doc>] Ed G. asked a series of questions about the settings and accuracy ranges on the page. Bill C. suggested a final look-through combining the previous document with the one passed out at this meeting; there will be a conference call later this week to finalize. John of Plug Power would like a clear understanding of certification requirements of Rule 21. Plug Power has run pass/fail production tests and has passed all of them without exception. However, no notation is given as to level at which pass occurred. Question from Edan P. about other certifications: Chuck W. said that inverter mfrs would like to certify their units, such as Xantrex.

- Utility DG Activity Sheets – No discussion.
- Status of Advice Letter Filings –

3 Utilities like term of "Initial Review" rather than "Screens/Screening"; Werner wants to make sure that if "Initial Review" is used, that it should not include Supplemental Review. Chuck W. asked for where that confusion exists, and clarified that calling it "Screening" would not cover review of the application. Werner said the word "steps" is sometimes used; he is asking for consistency. Werner urges a clarification of IRP from Supplemental; definition of IRP should say what it includes; definition of Supplemental should say what it includes.

### **Non-Technical Breakout (Rest of the Day with a Lunch Break)**

- Advice Letter Filings, continued

Werner B. had made some changes from 28d; Utilities collectively decided to go back to v28d. Tom & Werner have both made changes, attempting to work out inconsistencies. Changing section language, Scott T. pointed out, can cause legal issues that move away from consensus. That appears to be what has happened. Scott suggests that we draw the line and avoid the wordsmithing. Werner said who has liability for interconnection facilities is not clear, for example. Scott pointed out that the past year has been spent working out inconsistencies.

The group decided to go over the document at the meeting rather than putting it off to a conf. call. Section B5: Tom D. suggests no change. C1b: delete word "screening"; term "Application Fee" should be stricken (doesn't occur here, but later in doc) and "Initial Review Fee" should be used in all cases. Delete "and Supplemental". Add word "(additional)" after \$600 (had been in

v28d). Section C1c1 revert to original language in v28d. C1d: change "and" to "or" [4<sup>th</sup> line]. C1i. Werner B. says "true up" should not include application fee; take out "Initial and Supplemental Review Fee" and say "...against any advance payments...". D1a remove double colon. E3a Utilities have discretion to put their own language there (SCE will not others will). E3d SCE will have "Special Facilities", PG&E, SDG&E will have "Added Facilities"—each will define the term. E3d revert to 28d, strike "financed" add "operated". F3: lettering changes. + last sentence: "in exercising its discretion to require Net Generation Metering..." reinstated to 28d. Section H: Distribution Service: Peter O. added language stands. Revert to 28d for "Initial Review" and "Supplemental Review" separate: in "Supplemental Review" delete the word "Process" after words "Initial Review". "Supplemental Review" a)strike "Simplified" add "Approval of" Interconnection Facilities: Werner B. : should it include "engineering and design"? It's in the BIN for next time (below). Screening will not be defined. I3 – Retitle the flowchart to "Initial and Supplemental Review Flowchart". J1 3<sup>rd</sup> paragraph, capitalize "Generators". 7a1: strike "the Non Exporting" put in "Screen 2".

Advice Letter Filings = Tom D.'s version 4/14 + today's changes Pat of SCE will do this; Mary T. of SDG&E will do a doc compare with v28d. Will be done by end of week + whatever time legal dept's need for review.

#### List of Items to take up after Advice Letter filings:

1. C1d. Last 2 sentences: Facility design & engineering included in \$5000? Also: definition of Interconnection Study... does it include engineering and design?
2. Note: Utility-specific language should be noted (by color) in next Compilation
3. Add "inverter" to definitions?
- 4.

- CPUC Decision 02-37-057 Follow-up
  - Progress on advice letter filings – PG&E has filed a memo account (Thursday last week). PG&E's rolling it out, and many people must be trained. 4 buckets from last week—PG&E group doesn't want to track projects > 1MW, no requirement to track larger bucket. PG&E will consider adding a fourth bucket later, but will file for only the 3 buckets. They don't want to have to spend resources on the larger projects. PG&E has several people who will be responsible to oversee the cost accounting rollout—this is not their only project (they are not dedicated to this task alone). Net Energy Metering, Small Generation, and Special Facilities are all manual billing and accounting systems at this point. SCE has had some trouble getting others in the company to comply; PG&E had same trouble initially until they got VP-level buy-in because it's a compliance effort. SCE needs project-specific information to put data into the 4 buckets; points out that incremental effort for 1+MW bucket does not add much additional effort. Start-up moved to 1/1/2003. Incentive to utilities is that rate case can use actual effort #'s. SCE plans to include the dropouts & to track the # of dropouts—they will track by project. PG&E will only track by bucket, at least initially.

- Development of cost accounting systems (Goal: June 1, 2002)
- Rule 21 Language Update: Section F (Telemetry, Metering, et al)  
Not covered.
- Development and Review of Equipment Certification Language  
Not covered.
- Tariff Matrix – Mike Mazur, updated with PG&E tables & input from SCE & SDG&E  
Not covered.

## **Technical Breakout (Rest of the Day with a Lunch Break)**

At 10:30 the group took break and resumed in separate breakout sessions. Bill Brooks and Chuck Whitaker co-facilitated the rest of the morning and afternoon sessions. Since the skeletons of the Export and 15% screens were formulated, it was decided to review the information assembled in those two sections.

Prior to getting into the details of the supplemental review sections, the format and process of the sections were reviewed. This included the followed this basic process outlined by Chuck Whitaker and Bill Cook in an April 5 email:

Supplemental Review Guideline:

- 1) Technical issues involved (taken from significance section)
- 2) Potential options for dealing with the issues raised in 1)
- 3) Additional data required from Applicant
- 4) Additional data and analysis required by EC
- 5) Possible (go/no go) decision points for
  - a. Pass screen,
  - b. Pass with conditions,
  - c. Interconnection study required.
- 6) Potential Interconnection study items.

Chuck Whitaker then began to review the contents of the section he assembled on the Export Supplemental Review process. The technical issues raised with this screen are islanding, voltage regulation, and EC distribution equipment ratings. An explanation was given for the rationale behind the low, medium, and high penetration scenarios as they relate to voltage regulation and the justification for delineating these three categories. Mohamed Vaziri of PG&E raised a new issue under voltage regulation relating to customers with Generating Facilities on open delta services. The voltage regulators on these systems may require a closer review because of potential overvoltage issues.

The potential options for dealing with islanding concerns were discussed. Of particular interest was the section for optional methods for mitigating islanding. Since these basic areas had no descriptions, several questions were raised as to what these areas meant and how they would be explained in the final document. It was discussed that these were simply headings and that at least a paragraph of explanation would be drafted to provide the utility engineer and system supplier with possible ways to use those options to address the issues of islanding.

Another area that received significant discussion was section 1.3.2 relating to the potential options related to voltage regulation issues. Several concerns were raised with the concept of simply using the 15% of line section value to address low penetration voltage regulation issues. The point was made that a generator near the end of a line section could cause voltage regulation problems if a similar size load were located near the generator. The generator could mask the load's impact on voltage and allow the load to go to low voltage.

Other issues discussed included the ratings of EC distribution equipment. It was the sense from several utility engineers that this would not be much of an issue, but that guidelines should be laid down. Another issue related to the export screen was the statement about a "simple study" in Section 1.5. This was ambiguous and the language was changed to "simple analysis" instead to differentiate it from a more rigorous load flow study.

The discussion shifted to Bill Cook's supplemental review guidance related to the 15% of Line Segment screen for the last 45 minutes of the afternoon. Of the technical issues involved in this screen, cold load pickup was not specifically mentioned as an issue and this was added to the list. Under options to address these issues, the point was made that monitoring and scheduling of power could alleviate some of the concerns related to this screen. The discussion on the 15% screen was by no means completed during the afternoon, but participants at the meeting had a better understanding of the issues that this screen addressed and are welcome to present their comments to Bill Cook to work into the next draft.

Participants were encouraged to contact the section leaders for each of the four screen being reviewed and those individuals are listed again below for reference.

<u>Supplemental Review Topic</u>	<u>Lead Responsibility</u>
1) Export (Screen 2)	Chuck Whitaker
2) 15% line segment (Screen 4)	Bill Cook

3) Non-certified Equipment (Screen 3) Mohammad Vaziri

4) SCCR requirements (Screen 7) Bob Baldwin/ Ed Grebel